

REMARKS

Claims 1-21 are pending in this application. By this Amendment, claims 8 and 12 are amended, as is the specification. The amendments introduce no new matter. Reconsideration of the application based on the above amendments, and the following remarks, is respectfully requested.

Applicants gratefully acknowledge the Office Action's indication that claims 14-18, 20 and 21 are allowed, and that claims 3-6, 9 and 13 recite allowable subject matter. However, for at least the reasons discussed below, Applicants respectfully submit that all claims are allowable.

I. Rejections Under 35 U.S.C. §112

The Office Action rejects claim 8 under 35 U.S.C. §112, second paragraph, as being indefinite. Claim 8 is amended to obviate the rejection. Accordingly, reconsideration and withdrawal of the rejection of claim 8 is respectfully requested.

The Office Action rejects claim 12 as containing an error. Claim 12 is amended consistent with the Examiner's suggestion. Accordingly, reconsideration and withdrawal of the rejection of claim 12 is respectfully requested.

II. Rejections Under 35 U.S.C. §103(a)

The Office Action rejects claims 1, 2, 7, 8, 10-12 and 19 under 35 U.S.C. §103(a) as being unpatentable over JP-2002-171606 to Takamura, in view of U.S. Patent No. 6,268,754 to Sakuma. This rejection is respectfully traversed.

Neither Takamura nor Sakuma, alone or in combination, disclose at least a motor drive apparatus having an inverter driving a motor, a voltage converter including a switching element and a reactor and having said switching element switched to convert a DC voltage between a power supply and said inverter, and a control circuit controlling said voltage

converter to stop said switching element from switching when said reactor's current traverses a zero point, as recited in independent claim 1.

Specifically, neither Takamura nor Sakuma teaches, or would have suggested, a control circuit controlling said voltage converter to stop said switching element from switching when said reactor's current traverses a zero point. The Office Action concedes that Takamura does not disclose a reactor's current traversing a zero point. Sakuma fails to overcome this deficiency of Takamura.

Sakuma fails to teach, or reasonably to have suggested, stopping a switching element from switching when reactor's current traverses a zero point. Sakuma discloses only a reactor 14 in which current is zero when the switch is in mode I, (col. 7, lines 35-43). Further, Sakuma discloses current in the reactor is uniformly non-negative (Sakuma, col. 7, lines 25-35; Fig. 5 and Fig. 6).

The Office Action does not specifically address the features of independent claims 2 and 19; however, independent claims 2 and 19 similarly recite the feature of controlling said voltage converter to stop a switching element from switching when the current traverses a zero point. Takamura and Sakuma fail to teach, or reasonably to have suggested, all of the features of independent claims 2 and 19, for substantially the same reasons as addressed above regarding claim 1.

For at least the above reasons, Takamura and Sakuma, in any permissible combination, fail to teach, or to have suggested all of the features of independent claims 1, 2 and 19.

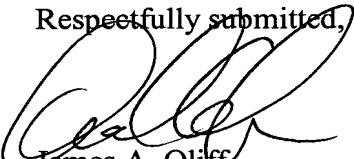
Further, claims 7, 8, 10 and 12 would also not have been suggested by the combination of the applied prior art references for at least the respective dependence of these claims on allowable independent claims 1, 2 and 19, as well as for the separately patentable subject matter that each of these claims recites.

Accordingly, reconsideration and withdrawal of the rejection of claims 1, 2, 7, 8, 10-12 and 19 under 35 U.S.C. §103(a) over Takamura in view of Sakuma are respectfully requested.

III. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1, 2, 7, 8, 10-12 and 19, in addition to the indicated allowable subject matter of claims 3-6, 9 and 13, and the allowance of claims 14-18, 20 and 21, are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,

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